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# NOTICE OF ALLOWANCE AND FEE(S) DUE

25006

7590

06/22/2010

EXAMINER

BRAINARD, TIMOTHY A

ART UNIT PAPER NUMBER

GIFFORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C PO BOX 7021 TROY, MI 48007-7021

3662

DATE MAILED: 06/22/2010

| ſ | APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-----------------|-------------|----------------------|---------------------|------------------|
| • | 10/574,632      | 04/05/2006  | Johann Hipp          | MFA-20302/04        | 4098             |

TITLE OF INVENTION: DISTANCE MEASUREMENT

| ĺ | APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|---|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| • | nonprovisional | YES          | \$755         | \$300               | \$0                  | \$1055           | 09/22/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

| indicated unless correcte<br>maintenance fee notifica  | ed below or directed oth tions.  | nerwise in Block 1, by (   | (a) specifying a new corr   | espondence address; a  |   | rate "FEE ADDRESS" for  |  |
|--|--|--|---|--|---|---|--|
| CURRENT CORRESPOND   | ENCE ADDRESS (Note: Use Bl   | ock 1 for any change of address)   | Fe<br>pa  | e(s) Transmittal. This pers. Each additional p   | ailing can only be used for<br>certificate cannot be used for<br>paper, such as an assignment<br>f mailing or transmission.                       | or any other accompanying   |  |
| 25006  |  | y2010  |   | G  |   | mission   |  |
| GIFFORD, KR<br>PO BOX 7021<br>TROY, MI 4800  | RASS, SPRINKLE<br>07-7021  | E,ANDERSON &   | CITKOWSKI, P.Q<br>St<br>ad<br>tra   | hereby certify that this<br>ates Postal Service wit<br>dressed to the Mail S<br>ansmitted to the USPTO                       | Fee(s) Transmittal is being<br>in sufficient postage for firs<br>stop ISSUE FEE address<br>0 (571) 273-2885, on the da                            | deposited with the United t class mail in an envelope above, or being facsimile atteindicated below.                                |  |
|  |  |  |   |  |   | (Depositor's name)  |  |
|  |  |  | _   |  |   | (Signature)   |  |
|  |  |  |   |  |   | (Date)  |  |
| APPLICATION NO.  | FILING DATE  |  | FIRST NAMED INVENTO   | PR A   | TTORNEY DOCKET NO.  | CONFIRMATION NO.  |  |
| 10/574,632   | 04/05/2006   | •  | Johann Hipp   | •  | MFA-20302/04  | 4098  |  |
| TITLE OF INVENTION   | : DISTANCE MEASUR  | REMENT   |   |  |   |   |  |
|  |  |  |   |  |   |   |  |
|  |  |  |   |  |   |   |  |
| APPLN, TYPE  | SMALL ENTITY   | ISSUE FEE DUE  | PUBLICATION FEE DUI   | PREV. PAID ISSUE   | EE TOTAL FEE(S) DUE   | DATE DUE  |  |
| nonprovisional   | YES  | \$755  | \$300   | \$0<br>  | \$1055  | 09/22/2010  |  |
| EXAM   | IINER  | ART UNIT   | CLASS-SUBCLASS  |  |   |   |  |
| BRAINARD,  | TIMOTHY A  | 3662   | 356-005010  | <del></del>  |   |   |  |
| 1. Change of corresponde CFR 1.363).   | ence address or indicatio  | n of "Fee Address" (37   |   | or printing on the patent front page, list   |   |   |  |
| _ ′  | ondence address (or Cha  | inge of Correspondence   | (1) the names of up<br>or agents OR, alterna  | to 3 registered patent a<br>tively,  | attorneys <sup>1</sup>  |   |  |
| ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form      |  |  | registered attorney or agent) and the names of up to  |  |   |   |  |
| Number is required.  | 2 or more recent) attach   | ied. Use of a Customer   | listed, no name will b  | pe printed.  | name is 3   |   |  |
| 3. ASSIGNEE NAME A   | ND RESIDENCE DATA  | A TO BE PRINTED ON   | THE PATENT (print or t  | ype)   |   |   |  |
| PLEASE NOTE: Unl   | less an assignee is ident<br>h in 37 CFR 3.11. Com   | ified below, no assignee   | data will appear on the of a substitute for filing a  | patent. If an assignee<br>n assignment.  | is identified below, the do   | ocument has been filed for  |  |
| (A) NAME OF ASSI   | •  |  | (B) RESIDENCE: (CIT   | •  | UNTRY)  |   |  |
|  |  |  |   |  |   |   |  |
|  |  |  |   | <b>.</b>   |   |   |  |
| Please check the appropr   | iate assignee category or  | categories (will not be p  | rinted on the patent):  | ┛ Individual   Corp  | oration or other private gro  | up entity  Government   |  |
| 4a. The following fee(s)   | are submitted:   | 4  |   |  | previously paid issue fee s   | shown above)  |  |
| ☐ Issue Fee☐ Publication Fee (No small entity discount permitted)  |  |  | ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached.   |  |   |   |  |
| Advance Order - # of Copies  |  |  | The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number |  |   |   |  |
| 5. Change in Entity Sta  |  |  | overpayment, to De  | posit Account Number   | (enclose ar   | extra copy of this form).   |  |
|  | is SMALL ENTITY state  |  | ☐ b. Applicant is no le   | onger claiming SMALL   | ENTITY status. See 37 CF  | FR 1.27(g)(2).  |  |
| NOTE: The Issue Fee an interest as shown by the  | d Publication Fee (if req<br>records of the United Sta   | uired) will not be accepte<br>tes Patent and Trademarl   | ed from anyone other thank Office.  | the applicant; a registe   | ered attorney or agent; or th   | e assignee or other party in  |  |
|  |  |  |   | Б.:  |   |   |  |
| Authorized Signature   |  |  |   |  |   |   |  |
| Typed or printed name This collection of information is required by 37 CFR 1.311. The informat.  |  |  |   | -  |   |   |  |
| This collection of inform<br>an application. Confiden<br>submitting the complete<br>this form and/or suggesti<br>Box 1450, Alexandria, V<br>Alexandria, Virginia 223 | tiality is governed by 35<br>d application form to the<br>ions for reducing this bu<br>Virginia 22313-1450. DC | OFR 1.311. The informati<br>U.S.C. 122 and 37 CFR<br>USPTO. Time will vary<br>rden, should be sent to the<br>ONOT SEND FEES OR | on is required to obtain on 1.14. This collection is of depending upon the incure Chief Information Offic COMPLETED FORMS             | r retain a benefit by the<br>estimated to take 12 mi<br>ividual case. Any com<br>cer, U.S. Patent and Ti<br>TO THIS ADDRESS. | public which is to file (and<br>nutes to complete, includin<br>ments on the amount of tin<br>ademark Office, U.S. Depa<br>SEND TO: Commissioner f | by the USPTO to process) g gathering, preparing, and ne you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450, |  |

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

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| APPLICATION NO. | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|-----------------|-----------------|----------------------|-------------------------|------------------|--|
| 10/574,632      | 04/05/2006      | Johann Hipp          | MFA-20302/04            | 4098             |  |
| 25006 75        | 590 06/22/2010  |                      | EXAMINER                |                  |  |
| GIFFORD, KRA    | SS, SPRINKLE,AN | BRAINARD, TIMOTHY A  |                         |                  |  |
| PO BOX 7021     |                 |                      | ART UNIT                | PAPER NUMBER     |  |
| TROY, MI 48007- | 7021            |                      | 3662                    |                  |  |
|                 |                 |                      | DATE MAILED: 06/22/2010 |                  |  |

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

|  | Application No.   | Applicant(s)   |  |  |
|--|---|--|--|--|
|  | 10/574,632  | HIPP, JOHANN   |  |  |
| Notice of Allowability   | Examiner  | Art Unit   |  |  |
|  | TIMOTHY A. BRAINARD   | 3662   |  |  |
| The MAILING DATE of this communication appeal all claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R  | (OR REMAINS) CLOSED in this a<br>or other appropriate communication<br>IGHTS. This application is subject   | pplication. If not included on will be mailed in due course. <b>THIS</b> |  |  |
| 1. This communication is responsive to 6/9/2010.   |   |  |  |  |
| 2. X The allowed claim(s) is/are 34,35,38-42,45,48-54,56-62 ar   | <u>nd 65-68</u> .   |  |  |  |
| <ul> <li>3.  Acknowledgment is made of a claim for foreign priority ur</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> <li>3.  Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul>   | be been received. been received in Application No.  |  |  |  |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  |   | y complying with the requirements  |  |  |
| <ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm<br/>INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>   |   |  |  |  |
| <ul> <li>5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must</li> <li>(a) ☐ including changes required by the Notice of Draftspers</li> <li>1) ☐ hereto or 2) ☐ to Paper No./Mail Date</li> <li>(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date</li> <li>Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t</li> <li>6. ☐ DEPOSIT OF and/or INFORMATION about the depo</li> </ul> | son's Patent Drawing Review(PTG<br>s Amendment / Comment or in the<br>.84(c)) should be written on the draw<br>he header according to 37 CFR 1.12 | Office action of vings in the front (not the back) of 1(d).              |  |  |
| attached Examiner's comment regarding REQUIREMENT  |   |  |  |  |
| Attachment(s) 1. ☑ Notice of References Cited (PTO-892)  | 5. Notice of Informal   | Patent Application   |  |  |
| <ol> <li>Notice of Preferences Gled (110-032)</li> <li>DNotice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>   | <ul><li>5. ☐ Notice of Informal Patent Application</li><li>6. ☐ Interview Summary (PTO-413),</li></ul>  |  |  |  |
| 3. ☐ Information Disclosure Statements (PTO/SB/08),  | Paper No./Mail D<br>7. ⊠ Examiner's Amen  | eate   |  |  |
| Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit   |   |  |  |  |
| of Biological Material   |   |  |  |  |
|  | 9.  |  |  |  |
|  |   |  |  |  |

Application/Control Number: 10/574,632 Page 2

Art Unit: 3662

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Douglas Sprinkle on 6/15/2010.

The application has been amended as follows:

Claim 57 line 1, "in accordance with claim 55" is amended to –in accordance with claim 67—

Claim 58 line 1, "in accordance with claim 55" is amended to –in accordance with claim 67—

Claim 60 line 1, "in accordance with claim 55" is amended to –in accordance with claim 67—

Claim 61 line 1, "in accordance with claim 55" is amended to –in accordance with claim 67—

Claim 67, line 1, "a method of distance measurement" is amended to –an apparatus for distance measurement—

Claim 68, line 1, "a method of distance measurement" is amended to –an apparatus for distance measurement—

Application/Control Number: 10/574,632 Page 3

Art Unit: 3662

# Allowable Subject Matter

2. Claims 34-35, 38-42, 45-54, 56-62, and 65-68 are allowed.

3. The following is an examiner's statement of reasons for allowance: Lai et al (US 2003/0035097), Lewis et al (US 6950177), and Ogawa et al (US 2002/0145725) do not teach nor make obvious a detection threshold is applied to the amplitude function for the detection of the changes in the noise caused by the signal pulses and the respective associated object distance is determined in the amplitude function for the signal pulses (15) on the basis of at least one point in time at which the detection threshold is passed through.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY A. BRAINARD whose telephone number is (571)272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/574,632 Page 4

Art Unit: 3662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. A. B./ Examiner, Art Unit 3662

> /Thomas H. Tarcza/ Supervisory Patent Examiner, Art Unit 3662